REMARKS

Applicants have now had an opportunity to consider the office action issued on December 1, 2005. Reconsideration of the Application is respectfully requested.

The Office Action

Claims 1-3, 12, 13, 22, and 23 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Matsuda (U.S. Patent No. 5,973,792).

Claims 4-7, 11, 14-17, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuda in view of Bilgen ("Restoration of Noisy Images Blurred by a Random Point Spread Function").

Claims 8, 9, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuda in view of Numakura (U.S. Patent No. 5,371,616).

Claims 10 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuda in view of Balanis (*Advanced Engineering Electromagnetics*) and Numakura.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuda in view of Bilgen and Numakura.

The Matsuda Reference

Matsuda discloses a system in which a book is placed face-up on a specialized device. (Fig. 5) Matsuda takes an image of a first page and places it in a memory. That image is broken down into small blocks of about 5-10 pixels square. (col. 5, line 29) The user then turns the page, and Matsuda scans the opposite page (back side) of the first image. Similarly, Matsuda scans the facing page (which was behind the original first page). In other words, in the case of a typically bound book, if Matsuda scans page 1, it also scans page 2 and page 3. These pages are stored in respective memories. The data from page 1 is compared against inverted data from page 2 and data from page 3. The page 2 data then moves up and is compared to inverted page 3 data and page 4 data, and so on. Matsuda is taking the desired image, and comparing it to the image data behind it to discover what is transmitted through the paper. Matsuda makes a separate calculation for each page, as what is printed on each page changes each time the

user turns the page.

The Present Application Contrasted with Matsuda

The substrate on which the image is printed, however, remains constant. That is, the paper of page 1 is the same paper on which the page 2 image is printed, which is the same paper on which page 3 is printed, etc. The present application uses the reflectance characteristics of the substrate to determine where the image is, rather than the images transmitted through the substrate, as Matsuda uses. (See specification, page 11, lines 21-23) Thus, the present application establishes a threshold reflectance level. Areas that exhibit reflectance below this threshold are assumed to be areas of useful image. (i.e., text or pictures on the page) Areas of scanned pages that exceed this threshold level are determined to be show through, because they are mostly white, and reflect a greater amount of light than areas of useful image. Thus, the present application makes a reflectance calculation, which is valid for all pages of that media. Matsuda, as mentioned before, promotes each image through its memories renewing its transmittance calculation for each page scanned.

The Claims Distinguish Over the References of Record

Claim 2 now calls for transforming show-through compensated density data for one or all of the images into show-through compensated reflectance image data that is valid for an entire job. Support for this addition can be found on page 12, lines 17-19 of the Applicant's specification. As outlined above, Matsuda calculates transmittance data anew each time the user turns the page. One distinct advantage of the proposed system over Matsuda is that it is dependent in part on the characteristics of the substrate, rather than wholly on the characteristics of the print on the substrate. Therefore, once the reflectance characteristics of the substrate have been determined, the same reflectance data can be used for all similar tasks (e.g., copying multiple pages from the same book, or different volumes of similar books). Matsuda, in contrast, must recalculate transmittance for every iteration because the print on the substrate is different, even though the substrate may be the same.

It is therefore respectfully submitted that **claim 2** and **claims 3-11** dependent therefrom now distinguish patentably and unobviously over the

references of record.

Similarly, independent **Claims 12** and **23** have been amended to emphasize the applicability of a reflectance calculation to similar substrates. It is therefore respectfully submitted that **claims 12** and **23**, as well as **claims 13-22** dependent therefrom distinguish patentably and unobviously over the references of record.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application (Claims 2-23) are in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

Although it is believed no fees are due, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby authorized to call Patrick Roche, at Telephone Number (216) 861-5582.

Respectfully submitted,

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